ATTACHMENT 7
PERSONNEL TRAINING

7.1 General

The goal of the training program at the U.S. Army Chemical Agent Munitions Disposal System (USACAMDS) is to provide facility personnel with a knowledge of practices, procedures, and safety measures associated with proper hazardous waste management. This program will also familiarize participants with the following hazardous waste management regulations, as they apply to operations at USACAMDS.

- Utah Hazardous Waste Management Regulations (UHWMR)
- Resource Conservation and Recovery Act (RCRA)
- USACAMDS Part B Permit and all other permits

In order to meet these objectives the USACAMDS training program was developed. The training program is a dynamic program that is updated in response to new information and changes in the regulations. The course outline remains relatively stable but the content is revised as necessary to remain current.

The Waste Training Program is a combination of classroom and on-the-job instruction; the course content in each phase of the program is outlined in the next two sections.

7.2 Classroom Subjects

Three separate initial training courses are taught to all employees at USACAMDS. Because every employee receives the training outlined below, a matrix showing job positions and required training is not necessary. The courses are as follows:

- Chemical Surety Basic Course and Retraining Course
- USACAMDS Hazardous Waste Management Training Course
- Department of Defense Hazard Communication Course

The subject matter that is taught to the employees involved with hazardous waste operations enables them to perform their assigned duties and functions in a safe and healthful manner so as not to endanger themselves, other employees or the environment. Each employee in the USACAMDS Hazardous Waste Training Program must successfully complete the classroom study. A final examination is given to help determine successful completion of the Chemical Surety and Hazardous Waste Management courses. Personnel who do not successfully complete this training are given remedial training to ensure they have an adequate understanding of chemical surety and hazardous waste management concepts. Each employee also receives annual refresher training in the above areas. The scheduled length of each training course is detailed in section 7.4, Training Standards.

The following is an outline of the subject matter in each training course along with a brief description of each subject:

7.2.1 Chemical Surety Basic Course

- Chemical Terminology. Definitions and terms used with chemical agents emphasizing safety, surety and reliability.
- Chemical Munitions. Descriptions of the different types of chemical munitions and their various configurations including packaging and storage.
- Chemical Personnel Reliability Program (CPRP). Identifies the positions which fall under the guidelines of AR 50-6 and provides a means of assessing the reliability of personnel in these positions.
- Classification and Effects of Chemical Agents. Describes the types of nerve and blister agents, their physical characteristics, the physiological effects on the body, and the persistency of each agent.
- Protective Clothing. Reviews protective masks, their proper use and care, and the different types of protective clothing and equipment available for protection from agents.
- Chemical Agent Alarms/Detectors/Monitors. Describes the alarms for an agent emergency, the types of detection equipment used, and the monitoring methods used to prevent exposure to agent.
- Self Aid/First Aid and Decontamination. Discussion of the different decontamination solutions for chemical agents and the proper use of the nerve agent antidote kit. Basic first aid including CPR is also taught.
- Chemical Accident/Incident Control. Discussion of the different levels of a chemical event/accident, the response procedures during an incident, and the various teams that respond.

7.2.2 Chemical Surety Retraining Course

- Chemical Safety/Security/Reliability. Review of chemical agent exposure limits and safety policies that reduce the risk of exposure to chemical agents. Discussion of security warning systems, security lighting, intrusion detection, and barriers to create and maintain controlled/restricted areas. Identifies the positions which fall under the guidelines of AR 50-6 and provides a means of assessing the reliability of personnel in these positions.
- Classification and Effects of Chemical Agents. Describes the types of nerve and blister agents, their physical characteristics, the physiological effects on the body, and the persistency of each agent.
- Protective Clothing. Reviews protective masks, their proper use and care, and the different types of protective clothing and equipment available for protection from agent.

- Chemical Agent Alarms/Detectors/Monitors. Describes the alarms for an agent emergency, the types of detection equipment used, and the monitoring levels used to prevent exposure to agent.

- Self Aid/First Aid and Decontamination. Discussion of the different decontamination solutions for chemical agents and the proper use of the nerve agent antidote kit. Basic first aid including CPR is also taught.

7.2.3 USACAMDS Hazardous Waste Management Training (Initial and Retraining)

- Resource Conservation and Recovery Act (RCRA), Occupational Safety and Health Administration (OSHA), and Army Regulations. This lesson is a brief overview of various regulations which include UHWMR, water, air and hazardous materials regulations. Training requirements and the penalties which may be imposed for noncompliance are also discussed.

- Hazardous Waste Identification. This lesson gives the definition of F999 and P999, and a list of various materials that are managed as hazardous waste at USACAMDS.

- Hazardous Waste Management. This lesson describes the various information required for the USACAMDS operating record, additional record keeping requirements, spill or release notification requirements, the permitted storage and process areas at USACAMDS, hazardous waste movement at the facility, and the forms used to collect hazardous waste treatment and storage information.

- Hazardous Waste Handling Procedures. This lesson discusses the selection of proper containers for waste, aisle space requirements in storage areas, and that training for new employees must be completed within six months.

- Waste Analysis. The lesson topics include the general requirements of the Waste Analysis Plan, hazardous waste characteristics, laboratory certification, and documentation of waste analysis.

- Maximum Exposure Limits. This lesson reviews agent exposure limits and the use of proper personal protective equipment (PPE) for the type of work performed.

- Key Waste-Feed Cutoff Parameters. This lesson discusses furnace operating parameters and steps that must be taken when a parameter goes out of line.

- New Technologies and Engineering Controls. This lesson describes new and/or alternate technologies at USACAMDS and how engineering controls are used to prevent worker exposure or reduce worker exposure below permissible exposure limits.

- Emergency Response. This lesson discusses the implementation of the *USACAMDS Contingency and Spill Control Plan* and the role of the Area Response Team (ART) during spill response and clean up. Site sirens, alarms, emergency phone numbers and individual employee actions for spill notification are reviewed.

- Waste Minimization. Waste minimization goals and methods and ideas to minimize the generation of hazardous waste are discussed in this lesson.

- Material Safety Data Sheets (MSDSs). This lesson informs employees of the location of the "Right to Know" centers that contain MSDSs and additional safety and emergency response information. A brief review of how to read and understand the information in a MSDS is also presented as a yearly refresher of the OSHA Hazard Communication Standard.

- Polychlorinated Biphenyls (PCB's). This lesson discusses potential sources of PCBs. USACAMDS is not permitted to burn PCBs. Clean up of a PCB spill must begin within 24 hours of discovery.

7.2.4 Department of Defense Hazard Communication Course

- OSHA's Hazard Communication Standard. This lesson stresses that employees must be informed about hazardous chemicals in their workplace and be trained to work safely with them.

- Physical Forms and Exposure Hazards. This lesson discusses the three basic physical forms: solids, liquids and gases. Types of exposure hazards which include physical hazards and health hazards are also discussed.

- Types of Physical and Health Hazards. This lesson discusses physical hazards which are chemicals that cause explosion, fires, violent chemical reactions, or other hazardous situations. Health hazards, chemicals that can cause illness or injury when inhaled or swallowed, or through contact with the skin or eyes, are also discussed.

- Controlling Chemical Hazards. This lesson discusses the basic methods of controlling chemical hazards which are engineering controls, personal protective equipment and administrative controls.

- Introduction to MSDSs and MSDS Physical Hazard Information. This lesson discusses the general layout of an MSDS and where to find and understand the information in the physical data section, the fire and explosion hazard section, the reactivity data section and the precautions for safe handling and use section.

- MSDS Health Hazard Information. This lesson teaches how to find and understand the information in the hazardous ingredients section, the health hazards section and the control measures section.

- Using Labels and the Hazardous Chemical Inventory. This lesson discusses labeling requirements. Labels must contain all appropriate hazard warnings. The name must be the same on the label, the MSDS, and the hazardous chemical inventory list. Hazardous chemical inventory lists must be available and kept up to date.

7.2.5 Additional Training

Additional training for employees who respond to spills, including chemical agent spills, is taught by other organizations outside of USACAMDS. All employees who may be required to respond to spills receive 40-hour HAZWOPER training. The "Deseret Chemical Depot Chemical Accident/Incident Response and Assistance Plan (DCD-CAIRAP)" and the "Spill Prevention Control and Countermeasures Plan (SPCCP) and Installation Spill Contingency Plan (ISCP) for Deseret Chemical Depot," assigns the responsibility for spill/responder training.

7.3 On-The-Job Training

USACAMDS personnel receive on-the-job training from their supervisor based on the individual's job description. The training includes contingency plan implementation and familiarization with emergency procedures and equipment for the employee's applicable work area. Training on applicable Standing Operating Procedures (SOPs) is also provided by the supervisor. Additional on-the-job training occurs when a new hazardous material is introduced to the work place, or a new procedure is implemented.

The USACAMDS training program is also designed to ensure that facility personnel are able to respond effectively to emergencies. Test exercises that simulate an all types of emergencies at the USACAMDS site are conducted at regular intervals to practice implementation of the *USACAMDS Contingency and Spill Control Plan*. At the conclusion of each test exercise, a critique session is held to improve the emergency response prior to an actual emergency.

7.4 Training Standards

Training for new personnel is initiated when they start work at USACAMDS and is completed within six months. Personnel are not allowed to work unsupervised until training is completed. They are not assigned the responsibility of responding to emergency situations until training in the appropriate responses is completed. The initial training for all USACAMDS employees is 27.5 hours and the annual refresher training is 9 hours. The time requirement will be met as follows:

Course	**Initial Training**	**Annual Refresher Training**
Chemical Surety Course	20 hours	4 hours
USACAMDS Hazardous Waste Course	4 hours	4 hours
DOD Hazard Communication Course	3.5 hours	1 hour
Totals :	27.5 hours	9 hours

Personnel who transfer to USACAMDS from other areas will successfully complete the training program within six months of their transfer.

7.5 Training Director

The Director of CAMDS is the USACAMDS Training Director and is responsible for supervising the initial training and annual retraining of personnel. The Training Director has access to other instructors who are knowledgeable in the operations of the various units at USACAMDS, laboratory procedures, munitions handling, equipment design, and process design. The duties of the USACAMDS Training Director are:

- Supervise training of plant personnel in proper operations at USACAMDS
- Assist in updating operating and maintenance procedures
- Prepare training aids and manuals
- Supervise retraining as necessary to inform personnel of new procedures and annual retraining
- Maintain training records in accordance with 40 CFR 264.16(d) and (e)

Qualifications of the Training Director are experience in plant operations and knowledge of waste management regulations.

7.6 Training Records

Personnel training is documented and the appropriate records are maintained at USACAMDS. Training records for current employees will be kept until facility closure. Training records of former employees are kept for three years from the date that the employee last worked at the facility. Records of test exercises for emergency response are also retained. A list of all job titles and positions with the name of each employee filling that position is maintained. The written job description for each position lists the required skills, education, other qualifications, and hazardous waste management/handling duties that may be required. All employees must complete the training outlined in Section 7.2. A complete file of job titles and descriptions is maintained at USACAMDS. This file will be made accessible to regulators, and will be maintained such that it does not include any confidential information about employees. Examples of job titles for employees whose positions at the facility are related to hazardous waste management are listed below.

Examples of USACAMDS Job Positions Requiring Hazardous Waste Management Training:

Chemical Plant Operator
Chemical Engineering Technician
Chemical Plant Operations Inspector
Chemical Plant Operator Supervisor
Chemical Engineer
Chemist
Compliance Inspector
Electrical Engineer
Electrical Engineering Technician
Electronic Technician
Environmental Engineer
Instrument Mechanic Leader
Instrument Mechanic
Mechanical Engineering Technician
Mechanical Engineer
Monitoring System Mechanic
Monitoring System Repairer
Physical Science Technician